

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Plant Research Corporation

Hawaii HTDC- MEP

#### Plant Research Corporation Increases Production of Sugar Cane Swizzle Sticks

##### Client Profile:

Plant Research Corporation (PRC) markets and produces sugar cane Swizzle Stick products. The sugar cane products are used in a growing number of food applications, restaurants, food recipes, and drinks. PRC employs about 15 people at the manufacturing facility and sugar cane farm in Waimanalo, Hawaii.

##### Situation:

PRC is currently able to produce 40,000 units of Swizzle Sticks per month. In the long term, the company plans to expand its capacity to 1 million units per month. PRC wanted to improve its capacity with existing equipment and minimal capital expenditures and contacted the Hawaii MEP (HTDC-MEP), a NIST MEP network affiliate, for help.

##### Solution:

HTDC-MEP Project Manager, Frank Chan, implemented lean manufacturing principles to help PRC improve its throughput. A current value stream map was created to illustrate the material and information flows throughout the operations and to identify potential opportunities for improvement and elimination of waste. After interviewing staff and applying lean manufacturing concepts, a future state map was developed that provided a road map to improving throughput. Suggestions were made and implemented to: 1) Change the plant layout for material flow improvement and elimination of wasted motion, overproduction and transportation; 2) Standardize work procedures to improve quality and variability; 3) Cross-train to improve flexibility; 4) Point-of-use storage to reduce wasted motion; 5) Visual management to improve communication of objectives, quality and organization; 6) Process redesign to increase value added activities and reduce non-value-added activities; and 7) Add inexpensive capacity increases at the bottleneck operation.

##### Results:

- \* Improved throughput and increased sales by 250 percent.
- \* Improved lead-time by 5 percent.
- \* Improved scrap rate and quality through use of visual management tools.

##### Testimonial:

"The PRC management team is extremely pleased with the progress and looks forward to more training for employees in 5S, Total Preventative Maintenance, Lean Manufacturing & Office and implementing more projects. In particular, PRC is eager to integrate lean manufacturing principles into the forthcoming high capacity plant which will ensure a successful launch of the new plant and speed up the ramp up time."

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

Kevin Andrews, President